



1.8" Single Digit Display

MODEL NO : ELS-1836SRDB ECN : Page: 1/4

■ Features :

- Industrial standard size.
- Low power consumption.
- Categorized for luminous intensity.

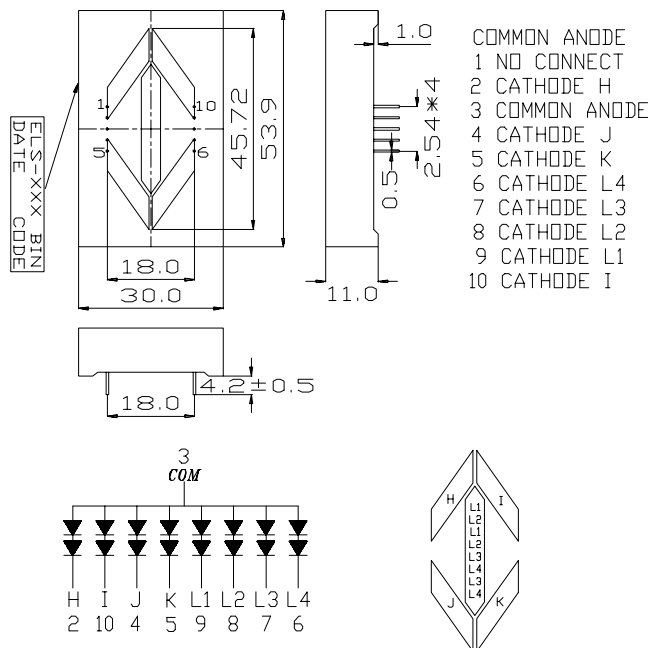
■ Description :

- The ELS-1836 series is a large 45.72mm (1.8")high seven segment display design for viewing distances up to 7 meters.
- These displays provide excellent reliability in bright ambient light .
- These device is made with red segments and black surface.

■ Applications:

- Audio equipment
- Instrument panels
- Digital readout display

■ Package Dimension:



■ NOTES:

- 1.All dimensions are millimeters, tolerance is 0.25mm unless otherwise noted.
- 2.Above specification may be changed without notice.
Supplier will reserve authority on material change for above specification.

PART NO	CHIP		C.C. or C.A.
	Material	Emitted Color	
ELS-1836SRDB	GaAlAs	Super Red	C.A.

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EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDS-183-005 REV: 1.0

1.8" Single Digit Display

MODEL NO : ELS-1836SRDB ECN : Page: 2/4

■ Absolute maximum ratings at Ta = 25°C :

Parameter	Symbol	Rating	Unit
Reverse Voltage	Vr	5	V
Forward Current	If	40	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Power Dissipation	Pd	110	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	If(Peak)	180	mA

■ Electronic optical characteristics :

Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Condition
Luminous Intensity	Iv	7.8	12.0	----	mcd	If=10mA
Peak Wavelength	λ_p	----	660	----	nm	If=20mA
Dominant Wavelength	λ_d	----	643	----	nm	If=20mA
Spectrum Radiation Bandwidth	$\triangle \lambda$	----	20	----	nm	If=20mA
Forward Voltage	Vf	1.5	1.7	2.4	V	If=20mA
Reverse Current	Ir	----	----	10	μA	Vr=5V



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Device Number : DDS-183-005 REV: 1.0

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MODEL NO : ELS-1836SRDB ECN : Page: 3/4

Reliability test item and condition:

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : +85°C 30min ∫ 5 min L : -55°C 30min	50 CYCLE	76 PCS	0/1
3	Thermal Shock	H : +100°C 5min ∫ 10 sec L : -10°C 5min	50 CYCLE	76 PCS	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : -55°C	1000 HRS	76 PCS	0/1
6	DC Operating Life	If = 20 mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 PCS	0/1



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Typical Electro-Optical Characteristic Curves:

